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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/661,498

09/15/2003

Naoyuki Egusa

117174

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10/16/2006

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EXAMINER

NOTE, JANIS L

ART UNIT

PAPER NUMBER

1756

DATE MAILED: 10/16/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/661,498

Applicant(s)

EGUSA ET AL.

Examiner

Janis L. Dote

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 August 2006.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
4a) Of the above claim(s) 14-19 is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-4, 6-9, 11-13 and 20-22 is/are rejected.
7) ☒ Claim(s) 5 and 10 is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 24 May 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 7/5/06
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____

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1. The examiner acknowledges the addition of claims 20-22 set forth in the amendment filed May 24, 2006. Claims 1-22 are pending.

The "Amendment to the specification" section filed on Aug. 7, 2006, has been entered.

2. Claims 14-19 have been withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on Dec. 16, 2005.

3. The "Amendment to the specification" section filed on May 24, 2006, did not comply with 37 CFR 1.121 for the reasons discussed in the Notice of non-compliant amendment mailed on Aug. 1, 2006. Accordingly, that "Amendment to the specification" section has not been entered.

4. The replacement drawing sheet of Fig. 2, filed on May 24, 2006, was found to be acceptable.

5. The objection to the drawings set forth in the office action mailed on Feb. 24, 2006, paragraph 3, has been withdrawn

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in response to the replacement drawing sheet filed on May 24, 2006.

The objection to the abstract set forth in the office action mailed on Feb. 24, 2006, paragraph 4, has been withdrawn in response to the replacement abstract filed on Aug. 7, 2006.

The objections to the specification set forth in the office action mailed on Feb. 24, 2006, paragraph 5, have been withdrawn in response to the amended paragraphs on pages 4, 14, 26, 29, and 30 of the specification, filed on Aug. 7, 2006.

The rejection of claim 1 under 35 U.S.C. 102(b) over US 5,327,201 (Coleman), set forth in the office action mailed on Feb. 24, 2006, paragraph 8, has been withdrawn in response to applicants' comments set forth in the response filed on May 24, 2006, page 12, lines 9-13, that Coleman permanently fuses the different color toner images to the transparent substrate.

The terminal disclaimer filed on May 24, 2006, disclaiming the terminal portion of any patent granted on this application that would extend beyond the expiration date of US Patent No. 6,985,691 has been reviewed and is accepted. The terminal disclaimer has been recorded.

Accordingly, the obviousness-type double patenting rejection of claims 1, 5, 6, 10, 11, and 13 over claims 1-20 of U.S. Patent No. 6,985,691 B2 (Kodera), set forth in the office

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action mailed on Feb. 24, 2006, paragraph 12, has been withdrawn.

6. The examiner notes that the instant specification at page 11, lines 15-16, defines the term "transparent" recited in the instant claims as "the property of transmitting a light in the visible region to a certain extent."

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 21 and 22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 21 is indefinite in the phrase "further comprising degassing the toner layers prior to laminating the temporarily fixed image" (emphasis added) for lack of unambiguous antecedent basis in claim 6, from which claim 21 depends. Claim 6 requires that the temporarily fixed toner image be converted to a fixed image by secondary heating prior to laminating. It is not clear

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when the degassing occurs, e.g., before or after the secondary heating.

9. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

10. Claims 20-22 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claims 20 and 21 recite that the method in claims 1 and 6, from which claims 20 and 21 depend, respectively, further comprises "degassing the toner layers prior to laminating the temporarily fixed image."

The originally filed specification does not provide an adequate written description of the degassing step now broadly recited in the instant claims. The originally filed

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specification at page 9, lines 14-17, discloses that the "plural toner layers are fixed in plural steps including a temporary fixing at a low temperature . . . Consequently, the toner layer is efficiently degassed at the fixing" (emphasis added). The specification at page 10, lines 17-18, discloses that the "toner layer may be subjected to the secondary fixing step by using an oven, for degassing the toner layers." The specification at page 24, lines 8-10, further discloses that the "second fixing step . . . is conducted for degassing the air remaining in the toner layer after the temporary fixing step conducted . . ."

According to the originally filed specification, the secondary fixing step fixes the temporarily fixed image, i.e., converts the "temporarily fixed image into a fixed image." See the originally filed specification, page 9, lines 12-13, and page 24, lines 4-5. The degassing step recited in instant claims 20 and 21 is broader than the originally described degassing step because it includes degassing steps that are not associated with the secondary fixing step, such as degassing the temporarily fixed toner image in a vacuum chamber.

11. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

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12. US 2003/0043108 A1 (Iwase) was published prior to the instant application's filing date of Sep. 15, 2003. Iwase is available as prior art under 35 U.S.C. 102(a) and 102(e).

13. Claims 1-4, 6-9, 11-13, 20, and 21 are rejected under 35 U.S.C. 102(a) as being anticipated by Iwase, as evidenced by applicants' admission at page 24, lines 8-10, of the originally filed specification (applicants' admission I).

Claims 1-4, 6-9, 11-13, 20, and 21 are rejected under 35 U.S.C. 102(e) as being anticipated by Iwase, as evidenced by applicants' admission I.

Iwase teaches a method of making a display panel, comprising the steps of: (1) laminating a plurality of toner image layers on a surface of a transparent substrate **10** and (2) fixing by heat the plural toner layers to the surface of the transparent substrate **10** by electrophotography; (3) heat-treating the fixed toner layers at a temperature where the melt viscosity of the toners is within a prescribed range for about 10 minutes to one hour to fill pinholes formed in the toner image layers; and (4) laminating the heat-treated toner layers of step (3) with a transparent film **40**. Paragraphs 0054, 0086, 0087, 0093-0096; Fig. 1; and example 4 in paragraph 0124. The plurality of toner layers includes a black toner layer **b** that is

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printed, i.e., developed, twice with a black toner; and a continuous white toner layer **a** that is formed as the uppermost toner layer. Fig. 1 and paragraphs 0095-0096. The plurality of toner layers meets the toner layer limitations recited in instant claims 2, 3, 7, and 8. The toner layers can be formed with a developer comprising a toner and a carrier where the toner is present in an amount of 2 to 12 wt% based on the weight of the developer, which meets the developer limitations recited in instant claims 4 and 9. Paragraph 0077. Iwase teaches that the temperature of the heat-treating step (3), which depends on the prescribed melt viscosity of the toners used, can be 100°C or 110°C and that the heat-treatment can be performed in a constant temperature bath. Example 4 and examples 6-9 in Table 4 at page 14 and in paragraph 0243. The heat-treating temperatures of 100 and 110°C are within the temperature ranges recited in instant claim 11. The constant temperature bath heating meets the non-contact fixing state recited in instant claim 13.

Iwase does not state that the heat-treatment step (3) is a fixing step as recited in the instant claims. However, as discussed above the Iwase heat-treatment step meets the fixing limitations recited in instant claims 11-13. Thus, it is reasonable to presume that the Iwase heat-treatment step has the characteristics of a fixing step as recited in the instant

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claims. The burden is on applicants to prove otherwise. In re Fitzgerald, 205 USPQ 594 (CCPA 1980).

Iwase also does not identify the heat-treatment step (3) as a degassing step as recited in instant claims 20 and 21. However, the originally filed specification teaches that the secondary fixing step is conducted for "degassing the air remaining in the toner layer after the temporary fixing step." See the originally filed specification, page 24, lines 8-10. As discussed above, the Iwase heat-treatment step meets the secondary fixing limitations recited in instant claims 11-13. Accordingly, it is reasonable to presume that the Iwase heat-treatment step also has the characteristics of a degassing step as recited in instant claims 20 and 21. The burden is on applicants to prove otherwise. Fitzgerald, supra.

Applicants' arguments filed on May 24, 2006, have been fully considered but they are not persuasive.

Applicants assert that Iwase fails to disclose or suggest "temporarily fixing" plural toner layers and laminating the temporarily fixed image with a laminate film recited in instant claim 1. Applicants assert that the "temporarily fixing" step is defined in the specification at page 21, lines 21, to page 22, line 17. Applicants assert that "Iwase . . . teaches heat-treating toner layers that have already been fixed in order

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to melt the toner layers to fill pinholes . . . formed on the toner image before the heat treatment . . . [whereas] the temporarily fixing method of claim 1 occurs before permanent fixing and prevents defects before such defects occur" (emphasis in the original).

Applicants' assertions are not persuasive. The specification at page 21, line 21, to page 22, line 17, does not define "temporarily fixing." Rather, the specification merely discloses the results of temporarily fixing plural toner layers in a "first embodiment." The specification discloses that "only the toner layer in the vicinity of the upper most layer is temporarily fixed with Fixing device **20** for preventing the blisters from being generated at the time of fixing . . . Only the toner in the uppermost layer of the secondary transfer image **6** is temporarily fixed to an extent not to cause image slippage." Specification, page 21, line 24, to page 22, line 4, and page 22, lines 10-11. Instant claim 1 does not recite that "only the toner in the uppermost layer [of the plurality of toner layers] is temporarily fixed to an extent not to cause slippage." Rather, instant claim 1 merely recites "temporarily fixing the plural toner layers." Applicants cannot argue patentability based on limitations that are not present in the claims.

Moreover, when given the broadest reasonable interpretation consistent with the instant disclosure, the term "temporarily fixing" includes all fixing steps that do not completely fix the toner in the image layers. In other words, the toner in the image layers is not completely fixed to the substrate. As discussed in the rejection above and noted by applicants in their response filed on May 24, 2006, page 13, lines 6-8, Iwase's heat-treatment step melts the toner in the image layers to fill pinholes formed in the fixed toner image layers. Iwase, in paragraph 0007, lines 8-11, defines the term "pinholes" as "tiny holes formed by toner not fixing to portions corresponding to the image portions and to the background portions on the plastic film" (emphasis added). Thus, because the Iwase fixing step (2) provides fixed toner image layers having pinholes that can be filled during a subsequent fixing step, the Iwase fixing step (2) does not completely fix the toner in the image layers on the substrate. Accordingly, the Iwase fixing step (2) meets the "temporarily fixing" step recited in instant claim 1.

Applicants further assert that Iwase does not teach or suggest the "temporarily fixing" step recited in claim 6. Applicants assert that the instant specification defines the "temporarily fixing" step at page 23, line 25, to page 24, line 24. Applicants assert that the "temporarily fixing step in

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claim 6 is distinguishable over Iwase because the temporarily fixing occurs in plural steps at a low temperature, not in a single step at a high temperature," while Iwase teaches a single fixing step.

Applicants' assertions are not persuasive. The specification at page 23, line 25, to page 24, line 24, does not define "temporarily fixing." Rather, the specification merely discloses that the primary fixing step, i.e., the temporarily fixing step, is the same as the fixing step in the first embodiment. As discussed above, the specification does not define "temporarily fixing" in the first embodiment. Furthermore, instant claim 6 does not require that the "primary fixing" step, i.e., the temporarily fixing step, comprise plural fixing steps at "low temperature" as urged by applicants. Rather, instant claim 6 merely recites "temporarily fixing the plural layers by primary fixing." Applicants cannot argue patentability based on limitations that are not present in the claims.

Moreover, as discussed supra, when given the broadest reasonable interpretation in light of the instant disclosure, the term "temporarily fixing" includes all fixing steps that do not completely fix the toner in the image layers. In other words, the toner in the image layers is not completely fixed to

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the substrate. For the reasons discussed supra, the Iwase fixing step (2) meets the "temporarily fixing" step recited in instant claim 6.

Accordingly, the rejection of claims 1-4, 6-9, 11-13, 20, and 21 stands.

14. Claims 5 and 10 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The prior art of record does not teach or suggest the methods for producing an image-recorded medium comprising the steps recited in instant claims 5 and 10. In particular, Iwase does not teach or suggest that its fixing step (2) is performed with a fixing temperature T1 in the range of 100 to 140°C as recited in instant claims 5 and 10.

15. Applicants' amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicants are reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Janis L. Dote whose telephone number is (571) 272-1382. The examiner can normally be reached Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Mark Huff, can be reached on (571) 272-1385. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Any inquiry regarding papers not received regarding this communication or earlier communications should be directed to Supervisory Application Examiner Ms. Claudia Sullivan, whose telephone number is (571) 272-1052.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JLD
Oct. 11, 2006

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